

Attorney Docket No.: P-633 (TI-0020)  
Inventors: Taylor and Yu  
Serial No.: 09/873,645  
Filing Date: June 4, 2001  
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#### REMARKS

Claims 13-16 are pending in the instant application. Claims 13-16 have been rejected. Claim 13 has been amended. Reconsideration is respectfully requested in light of these amendments and the following remarks.

#### **I. Rejections under 35 U.S.C § 112, Second Paragraph**

Claims 13-16 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claim 13 has been rejected for reciting "a system for computer implemented adjustment...for grouping of the plurality of chromatographic elution profiles method." The Examiner suggests that it is unclear what is intended; the system comprising an elution profile method, or grouping of a plurality of chromatographic elution profile methods. In an earnest effort to clarify, Applicants have amended claim 13 to read on a system for computer implemented adjustment of signal data and time data of a plurality of chromatographic elution profiles to generate values useful for grouping the plurality of chromatographic elution profiles. Support for this amendment is found in step (e) of claim 1 which states "values from the plurality of chromatographic elution profiles can be used to group the plurality of chromatographic elution profiles."

Claim 13, step (c) has also been rejected for reciting "within said span" and "said factor". The Examiner requests clarification of what span and what factor. In an earnest effort to clarify, Applicants have amended claim 13 to indicate that the

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span being referred to is a time span and the factor is a slope factor.

Claim 13 has further been rejected for reciting "wherein the computer receives a set of data" because it is unclear whether Applicants intend a method step or a limitation of the system. To clarify the system, Applicants have amended claim 13 to indicate that computer processor plots sets of data from a plurality of chromatographic elutions on a coordinate system comprising a first axis associated with time values and a second axis associated with detector response values, thereby generating a plurality of chromatographic elution profiles, wherein each set of data is obtained from the separation of a DNA mixture by Denaturing Matched Ion Polynucleotide Chromatography, wherein each DNA mixture comprises homoduplex and heteroduplex molecules obtained from hybridization of a sample DNA and its corresponding wild type DNA. In light of these amendments, it is respectfully requested that these rejections be withdrawn.

## **II. Rejections under 35 U.S.C. § 112, First Paragraph**

The rejection of claims 13-16 under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement has been maintained. It is suggested that the claims do not recite any limitations that include mutations or SNPs and one of skill in the art would not know how to use the data generated by the system to group the elution profiles for a particular purpose. Applicants respectfully disagree.

The instant claims expressly indicate that the computer processor plots sets of data from a plurality of chromatographic elutions ... thereby generating a plurality of chromatographic

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elution profiles, wherein each set of data is obtained from the separation of a DNA mixture by DMIPC, wherein each DNA mixture comprises homoduplex and heteroduplex molecules obtained from hybridization of a sample DNA and its corresponding wild type DNA. In this regard, pages 18-20 (lines 13-23) teach that mutations in sample DNA can be identified by comparing elution profiles of sample DNA with an elution profile of a control DNA, e.g., hybridizing a homozygous sample with a known wild-type fragment (see, page 19, lines 24-31). Thus, in an earnest effort to facilitate the prosecution of the instant application, Applicants have amended claim 13 to impart a use of the data generated by the claimed system. As amended, claim 13 specifies that the adjusted plurality of chromatographic elution profiles generated from separation of sample DNA hybridized with corresponding wild type DNA can be used to group the plurality of chromatographic elution profiles for comparison with values from control profiles to detect mutations in the sample DNA. Support for this amendment is found at pages 18-20 and Figure 3 which depicts comparisons between sample DNA and a control wild type fragment.

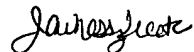
### **III. Conclusion**

Applicants believe that the foregoing comprises a full and complete response to the Office Action of record. Accordingly,

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favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Respectfully submitted,



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